APPENDIX J

ASSESSING WILDLIFE HAZARD MANAGEMENT PLANS AT CIVIL AIRPORTS

ASSESSING WILDLIFE HAZARD MANAGEMENT PLANS AT CIVIL AIRPORTS

This appendix describes a system (modified from Seubert 1994¹) for objectively assessing the implementation of wildlife hazard management plans at civil airports. Five assessment categories, each with a list of elements to be evaluated, are used to indicate how well airport wildlife hazard management plans are being implemented.

- Category 1. Management functions related to wildlife hazards at or in the vicinity of the airport.
- Category 2. Bird control at or in the vicinity of the airport.
- Category 3. Mammal control at or in the vicinity of the airport.
- Category 4. Management of habitat and food sources on airport property related to wildlife hazards.
- Category 5. Land uses and food sources off airport property potentially related to wildlife hazards at the airport.

The elements described in Categories 1-4 are assessed as to the degree that management programs are being implemented. The elements in Category 5 are rated as to the degree of hazard posed. Elements within each category are not intended to cover every possibility – they can be modified or expanded to meet situations unique to an airport.

During an assessment, each element in Categories 1-4 is examined and classified as one of the following:

- **S = Satisfactory**. If an assessor finds that an airport has initiated action to reduce a wildlife hazard according to plan and is on schedule, the action would be considered "satisfactory".
- **U = Unsatisfactory**. If no measures have been taken or inappropriate measures taken, the assessment would be "unsatisfactory".
- **NI = Needs improvement**. If implementation of a control measure is behind schedule or only partially accomplished, the assessment would be either "**needs improvement**", or "**unsatisfactory**", depending on the seriousness of the hazard.
- **NA = Not applicable**. If it is apparent that certain listed techniques or items are not applicable to the airport, the assessment would be "**not applicable**".

¹ Seubert, J. L. 1994. Assessing the implementation of wildlife hazard management programs at civil airports. Proceedings Bird Strike Committee Europe 22:275-284.

If an assessment is either "NI" or "U", a comment by an assessor is required on the Assessment Summary Form (last page). Examples of assessments requiring comments are as follows:

Category 1. Management functions related to wildlife hazards at or in the vicinity of the airport.

If permits have not been obtained (Code 1.1) for shooting or trapping birds or mammals, the assessment would be "U".

If animal remains found on runways are being counted to document bird strikes, but are not being identified by species (Code 1.13), the assessment would be "NI".

Category 2. Bird control at or in the vicinity of the airport.

If bioacoustics are not being used (Code 2.2), the assessment would be "U".

If the installation of wires (Code 2.9) over an airport pond is behind schedule, the assessment could be "NI" or "U", depending on the degree of potential hazard.

If raptors are not being trapped and relocated (Code 2.22), the assessment would be "U".

Category 3. Mammal control at or in the vicinity of the airport.

If fencing (Code 3.2) is in need of repair, the assessment would be "NI".

If rodenticides (Code 3.12) are not being used to control a rodent population attracting raptors, the assessment would be "U".

Category 4. Airport habitat and food sources related to wildlife hazards.

If airport litter control is inadequate (Code 4.9), the assessment would be "NI".

If trees used as a roost site (Code 4.3) are not being eliminated or thinned to be made unattractive, the assessment would be "U".

Categories 1-4 focus on actions that can be taken on the airport to reduce wildlife hazards.

Category 5 provides a list of off-airport land uses and food sources that may be attractive to birds or other wildlife. The assessor should review this list and score each element on a scale of 0 to 3:

- **0** = land use or food source not present;
- **1** = present but no wildlife problems noted or anticipated;
- **2** = site attracts some hazardous wildlife creating possible or potential problem, site should be monitored;
- **3** = site creates significant wildlife hazard for airport, action should be taken.

Wildlife hazards at airports frequently are attributable to these off-site attractants, but airport managers have no authority over the use of private property. However, airport managers can initiate programs to reduce the hazards of these off-airport wildlife attractants (e.g., garbage dumps, certain agricultural activities) by informing local jurisdictions and landowners of the hazards, and suggesting ways of alleviating them (Code 1.12).

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CATEGORY 1. Management functions related to wildlife hazards at or in the vicinity of the airport.

		ASS	SESS	MEN	Γ
CODE	ITEMS	S	NI	U	NA
1.1	Acquiring wildlife control permits from federal, state, and local agencies				
1.2	Arranging for wildlife hazard assessments and other studies, as needed, to evaluate hazard potential of wildlife attracted by habitats, land uses, and food sources on or in vicinity of airport.				
1.3	Developing Wildlife Hazard Management Plan based on Wildlife Hazard Assessment and other studies and factors.				
1.4	Defining and delegating authority and responsibility for Wildlife Hazard Management Plan.				
1.5	Supervising, implementing, and coordinating airport Wildlife Hazard Management Plan.				
1.6	Evaluating Wildlife Hazard Management Plan at least once a year.				
1.7	Training personnel responsible for implementing airport Wildlife Hazard Management Plan, especially field personnel.				
1.8	Operating wildlife patrol system with a trained field staff, conducting surveillance/inspections of critical airport areas, and effecting wildlife control when needed or requested.				
1.9	Establishing a communication capability between wildlife control and ATC personnel.				
1.10	Maintaining a system for warning pilots about wildlife hazards (e.g., NOTAMS, ATC, Radar observations).				
1.11	Ensuring that airport habitats are managed to reduce or eliminate wildlife attractions.				
1.12	Ensuring that airport policy prohibits feeding of wildlife and exposure of food wastes.				
1.13	Interacting with local jurisdictions and landowners about zoning, land use, and the resolution of wildlife hazard problems in vicinity of airport.				
1.14	Maintaining log book with daily record of wildlife control activities, wildlife activity, and reported wildlife strikes and wildlife remains found on runways identified by species.				
1.15	Reporting all wildlife strikes to FAA.				

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CATEGORY 2. Bird control at or in the vicinity of the airport.

		P	SSES	SSME	NT
CODE	TECHNIQUES	S	NI	J	NA
	DISPERSE, DETER, EXCLUDE, REPEL				
2.1	Bird patrols in vehicle				
2.2	Bioacoustics (distress calls)				
2.3	Electronically generated noise				
2.4	Propane cannons				
2.5	Pyrotechnics				
2.6	Shooting to scare				
2.7	Netting hangar rafters, ponds etc.				
2.8	Perching deterrents (e.g., stainless steel needles)				
2.9	Overhead wires for ponds, ditches, roofs etc.				
2.10	Chemical repellents				
2.11	Falconry				
2.12	Dogs				
2.13	Radio-controlled aircraft				
2.14	Thinning or eliminating roosting trees and shrubs				
2.15	Grass management				
2.16	Scarecrows				
2.17	Dead bird effigies				
	REMOVE				
2.18	Chemical capture (alpha chloralose)				
2.19	Nest and egg destruction				
2.20	Poisoning				
2.21	Predators to remove eggs (foxes, pigs, etc.)				
2.22	Shooting				
2.23	Trapping and relocation (e.g., raptors)				
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CATEGORY 3. Mammal control at or in the vicinity of the airport.

		A	SSES	SME	NT
CODE	TECHNIQUES	S	NI	U	NA
	DISPERSE, DETER, EXCLUDE, REPEL				
3.1	Cattle guards				
3.2	Fencing				
3.3	Vehicle patrols				
3.4	Propane cannons				
3.5	Pyrotechnics				
3.6	Rodent-resistant sheathing on electrical cables				
	REMOVE				
3.7	Controlled hunting (e.g., deer)				
3.8	Den destruction (e.g., coyotes)				
3.9	Fumigants (e.g., woodchucks)				
3.10	Kill trapping (e.g., beavers, muskrats)				
3.11	Live trapping and relocation or euthanasia (e.g., dogs)				
3.12	Rodenticides (e.g., mice, ground squirrels)				
3.13	Shooting (e.g., deer, woodchucks, hares)				

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CATEGORY 4. Management of habitat and food sources on airport property related to wildlife hazards.

		P	SSES	SSME	NT
CODE	ITEMS	S	NI	U	NA
	AGRICULTURE/VEGETATION MANAGEMENT				
4.1	Agricultural crops (especially grains)				
4.2	Plowing, mowing, harvesting (rodents, insects, worms)				
4.3	Landscaping (fruits & roost sites attractive to birds)				
4.4	Brush, shrubs, wood lots (cover, browse for deer)				
4.5	Misc. nesting sites (e.g., trees) for egrets, raptors, etc.				
	WASTE MANAGEMENT/SANITATION				
4.6	Feeding birds and mammals (by people)				
4.7	Food waste storage (e.g., cafeterias, catering services)				
4.8	Garbage dumps				
4.9	Litter				
4.10	Sewage treatment ponds/lagoons/outfalls				
4.11	Weeds, construction debris, junk yards				
4.12	Animal carcasses (dead livestock, bird strike remains)				
	WATER SOURCES				
4.13	Aquatic vegetation				
4.14	Canals, ditches, creeks, waterways				1
4.15	Low areas on pavement/ground that collect water				
4.16	Retention ponds (water, de-icing fluid)				
4.17	Water fountains				
	MICOSI I ANISOLIO ATTRACTANTO				
4.46	MISCELLANEOUS ATTRACTANTS				
4.18	Earthworms along runways				
4.19	Insects hatches from vegetation or soil				
4.20	Seed-producing vegetation.				
4.21	Flat roofs (e.g., gull nesting and loafing sites)				
4.22	Structures (hangars, towers, signs, poles, etc.)				

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CATEGORY 5. Land uses and food sources off airport property potentially related to wildlife hazards at the airport.

CODE	ITEMS	Score ^a	COMMENTS
	Agriculture		
5.1	Agricultural crops (especially grains)		
5.2	Aquaculture facilities		
5.3	Livestock feedlots		
5.4	Grain storage or grain mills		
	Commercial/recreational land uses		
5.5	Drive-in theaters, amusement parks		
	etc.		
5.6	Restaurants (esp. outdoor eating		
	areas)		
5.7	Picnic areas, parks		
5.8	Marinas		
5.9	Golf courses		
5.10	Flat roofs (gull nesting sites)		
	Waste management		
5.11	Garbage barges		
5.12	Garbage dumps		
5.13	Garbage transfer stations		
5.14	Fish processing plants		
5.15	Sewage lagoons, outfalls		
	Water sources		
5.16	Retention ponds (water, feedlots, etc.)		
5.17	Canals, creeks, ditches		
5.18	Reservoirs, lakes, natural ponds		
	Nesting/loafing/feeding areas		
5.19	Wildlife refuges/nature preserves		
5.20	Misc. nesting sites (egrets, raptors,		
	etc.)		
5.21	Roosting trees (starlings, egrets, etc.)		
5.22	Marshes, swamps, mud flats		
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^a **0** = not present; **1** = present but no wildlife problems noted or anticipated; **2** = site attracts some hazardous wildlife creating possible or potential problem, site should be monitored; **3** = site creates significant wildlife hazard for airport, action should be taken.

Appendix J 215 Airport Date_____ Assessment Page 6 of 6 SUMMARY FORM (Wildlife Hazard Assessment): Comments are required for all elements in Categories 1-4 assessed as "Unsatisfactory" or as "Needs Improvement" or with a score of 2 or 3 in Category 5. Airport: Date Manager or wildlife supervisor: Phone: Fax: E mail: Phone: Assessor: Fax: E mail: Assessors comments for elements rated "unsatisfactory" or "needs improvement" in Categories 1-4 or for elements scored 2 or 3 in Category 5. Assessment Element code symbol Comment Assessor's general comments (use back if needed):